

Remarks

Claims 1-15 were pending in the application. Claims 9-15 were rejected. Claims 1-8 were withdrawn. No claims were merely objected to and no claims were allowed. By the foregoing amendment, claims 3, 4, 6, 8, 11, and 12 are canceled, claims 9, 10, 13 and 15 are amended, and claims 16-29 are added. No new matter is presented.

New claim 18 is supported by former claim 12. New claim 19 is former claim 13 in independent form. Its dependent claim 20 is former claim 14. New claim 21 is former claim 14 in independent form. New claim 22 is former claim 15. New claims 23-25 are supported by paragraph [0018] of the present Pregrant Publication 2005-0121167 A1. New claims 26-29 are supported by paragraph [0019].

Claim Rejections-35 U.S.C. 112

Claims 11-14 were rejected under 35 U.S.C. 112(2) for asserted informalities in claims 11, 13, and 14. The rejection is traversed as to the amended and added claims.

Applicants note that vacuum may be drawn at one or more of multiple times and for one or more purposes. In two specific examples: (1) vacuum may be drawn to raise the level of the coating material to immerse or further immerse the pattern(s); and (2) vacuum may be drawn to help remove bubbles (e.g., after the coating material level has dropped to re-expose preliminarily coated pattern(s)). Except where expressly required, the claims should not be read as having distinct and sequential steps (e.g., events/processes may overlap and/or may occur in different orders than the elements appear listed in the claims).

With the foregoing in mind, claim 9 is believed appropriately silent as to at which of the possible times the vacuum is drawn and for which of the possible purposes it is drawn. These are appropriately addressed in dependent claims.

Claim Rejections-35 U.S.C. 102

Claims 9-11 were rejected as being anticipated by Horton (U.S. Patent No. 3,812,898). Applicants respectfully traverse the rejection.

Horton discloses a carousel-like system that sequentially immerses in slurry each of a

number of individual patterns on a fixture. Use of a vacuum is disclosed for bubble removal. Col. 4, line 62. The Office Action did not allege any vibration in Horton. Claim 9 has been amended to identify that both the rotation and vibration are achieved via a robot arm. No such arm is disclosed or suggested in Horton although arms are believed used elsewhere in the prior art without the present vibration and vacuum combination.

New dependent claims 16 and 17 respectively identify rotating the fixture about an off-vertical axis and rotating a first tank member about a vertical axis. Horton fails to disclose or suggest such rotations.

New independent claim 23 identifies a conduit partially immersed in the coating material. This is not disclosed or suggested by Horton. Further uses of the robot arm identified in claims 28 and 29 are similarly not disclosed or suggested.

Claims 9 and 10 were rejected as being anticipated by JP 62-214,849. Applicants respectfully traverse the rejection.

Although JP '849 does appear to identify the use of both a vacuum and vibration, it fails to disclose or suggest use of a robot arm.

Claims 9, 10, 13, and 14 were rejected as being anticipated by DE 2444515. Applicants respectfully traverse the rejection.

DE '515 similarly does not disclose use of a robot arm of claim 9 as amended. Enclosed is a copy of Canadian Patent 985012, the priority document for DE '515.

Regarding former claim 13, now independent claim 19 (see also new independent claim 23), DE '515 fails to disclose or suggest drawing the vacuum "from a headspace of a conduit partially immersed in the coating material".

Regarding former claim 14, now independent claim 21 (see also independent claim 23), DE '515 fails to disclose or suggest the drawing raising a level of the coating material.

Claims Rejections-35 U.S.C. 103

Claims 11 and 12 were rejected under 35 U.S.C 103(a) as being unpatentable over JP '849 and further in view of Horton. Applicants respectfully traverse the rejection.

The Office Action stated, "It would have been obvious to rotate the pattern [of JP '849] to produce a uniform coating in view of Horton." Office Action, page 4. No suggestion was cited for the proposed combination. Furthermore, as Horton substantially predates JP '849, it would be assumed that, if obvious, JP '849 would have included any relevant teachings of Horton. However, as is noted above, the references (and thus their combination) fail to teach the use of a robot arm of independent claim 9 as amended.

Claim 11 was rejected under 35 U.S.C 103(a) as being unpatentable over DE '515 and further in view of Horton. Applicants respectfully traverse the rejection.

The Office Action repeated the motivation for the JP '849/Horton combination. Again, there is no suggestion to attempt the combination. There is no indication that one of ordinary skill in the art would have found a need for the modification, let alone attempted it. Furthermore, there is no suggestion in the references or their combination to use a robot arm.

Claim 12 was rejected under 35 U.S.C 103(a) as being unpatentable over DE '515 in view of Horton, and further in view of JP '849. Applicants respectfully traverse the rejection.

The Office Action stated, "It would have been obvious to further vibrate the pattern of DE '515 during the coating to further improve the bubble removing process in view of JP '849." Office Action, page 4. As with the previous rejections, there is no citation for the alleged motivation. The proposed combination does not provide clear guidance as to when/how to vibrate the pattern of DE '515 generally, or teach or suggest the claim 12 vibrating during a rotating (see new claim 18). In any event, the combination fails to suggest the use of a robot arm.

Claim 15 was rejected under 35 U.S.C 103(a) as being unpatentable over DE '515. Applicants respectfully traverse the rejection.

The Office Action stated:


Although DE '515 does not show the redrawing step, it would have been obvious that after the first drawing step, and thus the coating step, the vacuum shall be released so that the slurry can be dropped back below the pattern and thereafter, a second lower vacuum shall be applied such that to remove the bubbles in the

coating layer while maintain the level of slurry below the pattern.
Office Action, page 4.

This assertion, however, is merely conclusory and without support in the references. There is no suggestion as to how to execute the proposed modification to achieve the claim 15 redrawing of the vacuum "without immersing the operative portion, so as to encourage the bursting of bubbles... on said operative portion." Although the Office Action proposed "a second lower vacuum" there is no teaching or suggestion of a second vacuum, let alone any indication that a "lower" vacuum would achieve any particular result.

Accordingly, Applicants submit that claims 1, 2, 5, 7, 9, 10, 13-29 are in condition for allowance. Please charge any fees or deficiency or credit any overpayment to our Deposit Account of record.

Respectfully submitted,

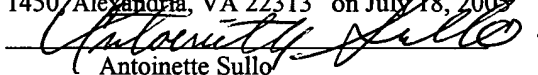
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I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: "Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313" on July 18, 2005.


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